NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

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SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary-Designate

BUTCH TONGATE
Deputy Secretary

ERIKA SCHWENDER
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

September 18, 2013

Mr. Joshua Ray
City Manager
City of Aztec
201 W. Chaco
Aztec, NM 87410

Re: City of Aztec Waste Water Treatment Plant; Major; Municipal; SIC 4952; NPDES Compliance Evaluation Inspection; NM0020168; August 21, 2013

Dear Mr. Ray:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Diana McDonald
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Barbara Cooney at 505-827-0212 or at barbara.cooney@state.nm.us .

Sincerely,

/S/ Bruce J. Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Hannah Branning, USEPA (6EN-WC) by e- mail
Jan Walker, USEPA (6EN) by e-mail
NMED District 1, Robert Italiano by e-mail

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

1	2	3	11	12	17	18	19	20
Transaction Code		NPDES		yr/mo/day		Inspec. Type	Inspector	Fac Type
N	5	NM0002016 8		130821		C	S	1

Remarks: AZTEC CITY OF WWTP

67	69	70	71	72	73	74	75	80
Inspection Work Days		Facility Evaluation Rating	BI	QA			Reserved	
1		2	N	N			MAJOR	

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*
City of Aztec WWTP – Location: From Bloomfield, take Hwy 550 North to Aztec to Hwy 516 → go east to Oliver Street. Turn - South, go about ½ mile south of the intersection (signal light) of Oliver Street and NM HWY 516. The road goes directly to the WWTP. The main lab and office buildings are on the right.

Entry Time /Date
0950 Hours/ August 21, 2013

Permit Effective Date
September 1, 2009

Exit Time/Date
1630 Hours/ August 21, 2013

Permit Expiration Date
August 31, 2014

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Anthony Garcia, Plant Operation Management Supervisor 505-334-6448
Mr. Andrew Galloway, Supervisor Water and Wastewater 505-334-8684

Other Facility Data

SIC: 4952

Latitude: 36°49'07" North

Longitude: 108°01'24"

Name, Address of Responsible Official/Title/Phone and Fax Number
Mr. Joshua Ray
City Manager
City of Aztec
201 W. Chaco
Aztec, NM 87401
505-334-7602

Contacted
Yes [ ] No [X]

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	M	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
S	Records/Reports	S	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
M	Effluent/Receiving Waters	U	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

See the Further Explanations Section of the Report for details.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
/S/ Barbara Cooney	NMED/SWQB 505- 827-0212	*September 18, 2013*
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date** *September 20, 2013*
/S/ Bruce Yurdin	NMED/SWQB 505- 827-2795	

Aztec, City of WWTP	PERMIT NO. NM0020168

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED No)*

DETAILS:

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	☒ Y ☐ N ☐ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES	☐ Y ☐ N ☒ NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	☒ Y ☐ N ☐ NA
4. ALL DISCHARGES ARE PERMITTED	☒ Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED No)*

DETAILS:

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	☒ Y ☐ N ☐ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	☒ S ☐ M ☒ U ☐ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING	☒ Y ☐ N ☐ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	☒ Y ☐ N ☐ NA
c) ANALYTICAL METHODS AND TECHNIQUES.	☒ Y ☐ N ☐ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.	☒ Y ☒ N ☐ NA
e) DATES AND TIMES OF ANALYSES.	☒ Y ☐ N ☐ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	☒ Y ☐ N ☐ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.	☒ S ☐ M ☐ U ☐ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	☒ S ☐ M ☐ U ☐ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	☒ Y ☐ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED Yes)*

DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED.	☒ S ☐ M ☐ U ☐ NA
2. TREATMENT UNITS PROPERLY MAINTAINED.	☒ S ☐ M ☐ U ☐ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.	☒ S ☐ M ☐ U ☐ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	☒ S ☐ M ☐ U ☐ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE. Sanitary Sewer Overflow at Llano Lift Station	☐ S ☒ M ☐ U ☐ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	☒ S ☐ M ☐ U ☐ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	☒ S ☐ M ☐ U ☐ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.	☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	☒ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	☒ Y ☐ N ☐ NA

Aztec, City of WWTP	PERMIT NO. NM0020168

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☒ Y ☐ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☒ Y ☐ N ☐ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☒ Y ☐ N ☐ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED No).*
DETAILS: Details for this section are coved under the Laboratory Section of the Further Explanations in this report

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. ☒ Y ☒ N ☐ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE ☐ Y ☒ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. ☒ Y ☐ N ☐ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☐Y ☒ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. Sample container for E. coli collection is not approved. ☐ Y ☒ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ☒ Y ☐ N ☐ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED No)*
DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☒ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. *(DATE OF LAST CALIBRATION August 2012)* ☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. No Calibration Checks Are Done ☐ Y ☒ N ☐ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☒ Y ☐ N ☐ NA

6. HEAD MEASURED AT PROPER LOCATION. ☒ Y ☐ N ☐ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED No)*
DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

Aztec, City of WWTP	PERMIT NO. NM0020168

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. no 10 % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. no % OF THE TIME. The permittee does take part in the DMR-QA study once a year w/ spiked samples ☐ Y ☒ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME	Hall Laboratory	Bio Aquatics
LAB ADDRESS	Albuquerque, NM	Carlton, TX
PARAMETERS PERFORMED	Total Nitrogen, Total Phosphorous	Bio Monitoring

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED yes).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
01	none	none	none	none	none	Clear	

RECEIVING WATER OBSERVATIONS Effluent exceedences during two months are the reason for the marginal rating

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☒ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☒ S ☐ M ☐ U ☐ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: Surface Disposal at Bondad Landfill in Colorado (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED No).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

City of Aztec WWTP
NPDES Permit Number NM0020168
Compliance Evaluation Inspection
State of New Mexico Surface Water Quality Bureau
August 21, 2013

INTRODUCTION

A Compliance Evaluation Inspection (CEI) was conducted at the City of Aztec Wastewater Treatment Plant (WWTP) by Ms. Barbara Cooney of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) on August 21, 2013. The inspection was conducted by NMED for the U. S. Environmental Protection Agency (USEPA), Region 6, under the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the Federal Clean Water Act. These inspections are conducted under agreement with USEPA and are used by the USEPA to determine compliance with the NPDES permit program.

This facility is a major domestic waste water treatment plant (WWTP) under the Federal Clean Water Act (CWA), section 402 National Pollutant Discharge Elimination System (NPDES) permit program, and is assigned NPDES permit number NM0020168. The Standard Industrial Classification Code (SIC) is 4942. The facility discharges into the Animas River in water quality segment 20.6.4.403 of the San Juan Basin *(State of New Mexico Standards for Interstate and Intrastate Surface Waters)*. The designated uses for the segment are municipal and industrial water supply, irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, primary contact and warmwater aquatic life.

INSPECTION DETAILS

The inspector arrived at the Aztec WWTP at 9:50 a.m. on August 21, 2013. Mr. Anthony Garcia, Plant Operation Management Supervisor, and Mr. Jason Shaw, Operator, were at the treatment plant. Mr. Andrew Galloway, Supervisor arrived soon after. The Inspector made introductions, showed her credentials and explained the purpose of her visit. Mr. Garcia, Mr. Shaw and Mr. Galloway accompanied Ms. Cooney as she toured the WWTP and the laboratory. Ms. Cooney was provided at her request, all records of plant and laboratory activity for the month of July 2013 for review. An exit interview was held with. Mr. Garcia, Mr. Shaw and Mr. Galloway and Mr. Ken George, Acting Public Works Director. The Inspector left the City of Aztec facility at 4: 30 p.m.

TREATMENT SCHEME

The WWTP is an Aero-Mod activated sludge treatment system designed to enhance Nitrogen and Phosphorous removal. The influent raw sewage passes through the solids and grit removal system at the headworks of the treatment plant, where a Parshall flume with staff gauge and an ultrasonic flow totalizer are located. There are parallel influent chambers, one with a manual bar screen and one with the mechanical solids removal system. The manual side was not being used at the time of the inspection. The screened influent then flows through an approximately 20 foot grit settling channel before reaching the lift station. The lift station consists of three sump pumps. The pumps are run on rotation, allowing one or two to be rested at a time. The pumps are also set on a float system for start up and shut down. The sewage is lifted to the above ground treatment works, entering the Bio Phosphorous (P) Reactor, which is a long basin with mixers and aerators, designed to convert organic phosphate to inorganic Phosphorous. This is accomplished by cycling aerobic and anaerobic phases in the treatment unit. To operate effectively during the anaerobic phase, the basin must reach a Dissolved Oxygen (DO) concentration of 0.0 mg/L. Currently, this unit is not reaching that low level of oxygen. During

the anaerobic phase, the basin is still being aerated by the turbulence from the return flow of the decant from the solids digesters, and from the mixers that run at the bottom of the basin. The inability to reach the necessary low O_2 levels is reducing the effectiveness of Phosphorous removal.

From the Bio P Reactor, decant is sent to the aeration basins. From the aeration basin, decant is sent through the clarifiers, and through the Advanced Nutrient Removal System (ANR). Post clarification and before the sand filter Ferric Chloride Fe Cl is added to enhance phosphorous removal. The ANR is a final filtration and polishing unit w/ silicate sand. The treated water is then sent to UV disinfection, then past the ultrasonic totalizing effluent flow meter at the Parshall flume, where a staff gauge is also located. The treated water passes through an enclosed pipe approximately 1000 feet long to the final discharge at the Animas River.

SLUDGE

Solids are wasted from the Bio P Reactor, the aeration basins and the secondary clarifiers to an aerobic digester. Returned Activated Sludge (RAS) is sent back to the head of the Bio P Reactor. Decant from the digester is also sent to the Bio P Reactor, where it mixes with the raw influent. From the digester, solids are sent to the belt press, mixed with a dewatering polymer, then hauled to the sludge drying beds. Final disposal of solids is to a surface disposal site at the Bondad landfill in Colorado. The sludge drying beds have under drains that direct liquids back to the head works and mix with raw influent.

FURTHER EXPLANATIONS

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

Section A – Permit Verification – Overall Rating of "Satisfactory"

Section B – Record Keeping and Reporting – Overall Rating of "Satisfactory"

Section C - Operation and Maintenance – Overall Rating of "Marginal"

Permit Requirements For Operation and Maintenance

The permit requires in Part III.3. PROPER OPERATIONS AND MAINTENANCE:

> *a. The permittee shall properly and maintain all facilities and systems of treatment and control (and appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operations and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*

Findings For Operation and Maintenance:

The Aero-Mod treatment plant first came on line in September 2009 but had to be taken off again while repairs and modifications were being made to the treatment works. The new plant again came on line April 21, 2010.

The Bio P Reactor is designed to remove Phosphorous from the wastewater. This is accomplished by cycling aerobic and anaerobic phases in the treatment unit. To operate effectively during the anaerobic phase, the basin must reach a Dissolved Oxygen (DO) concentration of 0.0 mg/L. Currently, this unit is not reaching that low level of oxygen. During the anaerobic phase, the basin is still being aerated by the turbulence from the return flow of the decant from the solids digesters, and from the mixers that run at the bottom of the basin. The inability to reach the necessary low O_2 levels is reducing the effectiveness of Phosphorous removal.

An overflow of an estimated 4000 gallons of raw sewage entered the Animus River from the Llano Street lift station located at Rockaway Park on April 16, 2013. The cause was high water entering the collection system though valves mistakenly left open by maintenance crews working with irrigation water. The high volume caused all three lift station pumps to be run continuously, overloading the electrical system, ultimately causing an electrical failure. The permittee has taken steps to increase the electrical capacity at the lift station and to institute maintenance procedures that will prevent future incidents.

Section D – Self Monitoring – Overall Rating of "Satisfactory"

Section E – Flow Measurements – Overall Rating of "Marginal"

Permit Requirements For Flow Measurements

The permit requires in Part III FLOW MEASUREMENTS:

> *Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.*

Findings For Flow Measurements:

The ultrasonic flow meter was last calibrated in August 2012. The meter calibration has not been checked against the staff gauge. Periodic checks against the staff gauge are advisable.

Section F - Laboratory - Overall Rating of ""Unacceptable"

Permit Requirements For Laboratory

The permit requires in Part III. 5. MONITORING PROCEDURES:

> *a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.*

Findings For Laboratory:

1. The laboratory analyst is not certified and only has onsite training to conduct the analytical procedures. Because of this, some procedures were not being followed properly.

2. The E. coli sample collection is not being performed correctly. The samples are being transferred between bottles from the collection to analysis.

3. The E. coli samples are not being preserved with Sodium Thio Sulfate as required in 40CFR Part 136.

4. The E. coli sample bottles are not being properly sterilized.

5. The pH buffer bottles should be dated with the time the bottle is opened.

Section G - Effluent and Receiving Water - Overall Rating "Marginal"

Permit Requirements For Effluent and Receiving Water

The permit requires in Part I. Requirements for NPDES Permits. Section A. Limitations and Monitoring Requirements. 1. Effluent Limits – 1.0 MGD Design Flow:

> *During the period beginning the start-up of the new facility and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated municipal wastewater from Outfalls 001. Such discharges shall be limited and monitored by the permittee as specified below:*

Effluent Characteristics	*Discharge Limitations*				*Monitoring Requirements*	
	lbs/ day		*mg/l*		*Measuring Frequency*	*Sample Type*
Pollutant	*30 day avg*	*7 day avg*	*30 day avg*	*7 day avg*		
Total Phosphorous	*9.32 (*3)*	*NA*	*0.93*	*0.93*	*1/month*	*24-Hr Composite*
Total Nitrogen	*25.3(*3)*	*NA*	*2.53*	*2.53*	*1/month*	*24-Hr Composite*

Findings For Effluent and Receiving Water

The effluent exceedences as submitted on the Discharge Monitoring Reports (DMRs) from the present time back to August 2012, the date of the last inspection, are listed below. The exceedences are listed in descending order with the most recent date first. See Table below:

Date	Pollutant	Permit Limit	Concentration Reported on DMRs
January 2013	Total Nitrogen Loading 30 day avg	25.3 lbs/day	**27.2 lbs/day**
January 2013	Total Nitrogen 30 day avg	2.53 mg/L	**3.8 mg/L**
January 2013	Total Nitrogen daily max	2.53 mg/L	**9.0 mg/L**
August 2012	Total Phosphorous Loading 30 day avg	9.32 lbs/day	**28.5 lbs/da7**
August 2012	Total Phosphorous 30 day avg	0.93 mg/L	**4.6 mg/L**
August 2012	Total Phosphorous daily max	0.93 mg/L	**4.6 mg/L**

Section H - Sludge Disposal - Overall Rating of "Satisfactory"